

Recovery Plan Action Status

Plan Name: Recovery Plan Puerto Rican Endangered Ferns (7spp)

Plan Status: Final

Plan Date: 17-Jan-95

Lead Agency: USFWS

Lead Office: Caribbean Ecological Services Field Office

(487)

851-7297)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	1	111	Obtain protective status for the privately owned population sites	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Acquisition: Easement	Internal Administrative	Cost cannot be determined at present due to the possibility of conservation easements or landowner agreements
No common name (Elaphoglossum serpens), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis)	1	112	Develop management plans, in cooperation with the Department of Natural and Environmental Resources for Toro Negro and Monte Guilarte Commonwealth Forests for the protection of Elaphaglossum serpens Thelypteris inabonensis and Polystichum calderonense	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Management: Other	Internal Administrative, Internal Technical Assistance	No cost anticipated

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	1	121	Monitor known populations	Partially Complete	FY 1995 - FY 1999	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Population Surveys	Graduate Student	This work has only been performed for Adiantum vivesii.
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	1	122	Enforce existing Commonwealth and Federal endangered species regulations	Ongoing Current	Prior to FY 1995	FY 2011	U.S. Fish and Wildlife Service, Law Enforcement Division, U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Other: Law Enforcement	Internal Field Assistance	One PRDNER ranger half-time

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	123	Educate the public conservation values and regulations pertaining to endangered species	Ongoing Current	FY 1995 - FY 1999	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Acquisition: Exchange	Internal Field Assistance	No cost anticipated
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	211	Identify and inventory potential sites	Not Started			Conservation Organizations, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Population Surveys	Contract, Graduate Student	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	212	Characterize sites to determine their suitability as future recovery sites	Not Started			Conservation Organizations, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Management Techniques	Contract, Graduate Student	No cost anticipated
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	31	Define habitat requirements	Not Started			Conservation Organizations, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Habitat Requirements	Contract, Graduate Student, Species Expert	Task duration: 2-4 years

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	312	Assess periodicity of spore production and dispersion	Partially Complete	FY 1995 - FY 1999	FY 2011	Conservation Organizations, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Demographic Studies	Graduate Student, Species Expert	10K/yr includes 312, 313 and 314 This work has only been performed for Adiantum vivesii.
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	313	Assess spore viability and germination requirements	Partially Complete	FY 1995 - FY 1999	FY 2011	Conservation Organizations, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Demographic Studies	Graduate Student, Species Expert	This work has only been performed for Adiantum vivesii.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	314	Evaluate gametophyte establishment and growth, the requirements for fertilization and sporophyte establishment and growth	Partially Complete	FY 1995 - FY 1999	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Demographic Studies	Graduate Student, Species Expert	This work has only been performed for Adiantum vivesii.
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	331	Assess feasibility of propagation	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Propagation	Contract, Graduate Student, Internal Technical Assistance, Species Expert	10K/yr includes 331 and 332

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	332	Develop artificial propagation program	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Management: Propagation	Contract, Species Expert	
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	411	Select sites and assess habitat suitability	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Habitat Requirements	Graduate Student, Internal Technical Assistance	Task duration: 2-4 years. No cost anticipated

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	412	Assure site protection	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Acquisition: Easement	Internal Administrative	Task duration: 2-4 years. No cost anticipated
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	413	Introduce and monitor plants	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Management: Reintroduction	Contract, Graduate Student, Internal Technical Assistance	Task duration: 2-4 years

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	51	Determine numbers of individuals and populations necessary to ensure species stability, security, and self-perpetuation	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources, USFWS Regional Office 4	Research: Demographic Studies	Graduate Student, Internal Technical Assistance	No cost anticipated
No common name (Elaphoglossum serpens), No common name (Tectaria estremerana), No common name (Polystichum calderonense), No common name (Thelypteris inabonensis), No common name (Thelypteris verecunda), No common name (Thelypteris yaucoensis), No common name (Adiantum vivesii)	2	52	Determine what additional actions, if any, are necessary to achieve recovery objectives	Ongoing Current	FY 2009	FY 2011	U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural and Environmental Resources	Research: Other Information	Internal Field Assistance, Internal Technical Assistance	No cost anticipated